STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

CEASE AND DESIST ORDER NO. 98-073

REQUIRING THE CITY OF LOS ANGELES TO CEASE AND DESIST DISCHARGES OF RAW SEWAGE ONTO STREETS AND INTO WATERS OF THE STATE

The California Regional Water Quality Control Board, Los Angeles Region (Regional Board) finds:

1. The City of Los Angeles (City) owns, operates, and maintains approximately 6,500 miles of sewers. These sewers comprise two wastewater collection systems that transport wastes in the Hyperion and Terminal Island service areas. The Hyperion service area, which covers the greater metropolitan area, transports the wastes to three treatment plants, namely the Donald C. Tillman Water Reclamation Plant (Tillman Plant), Los Angeles-Glendale Water Reclamation Plant (LA/Glendale Plant), and Hyperion Wastewater Treatment Plant (Hyperion Plant).

2. On February 24, 1994, the Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Board), adopted Order No. 94-021 (NPDES Permit No. CA0109991), containing Waste Discharge Requirements for the City of Los Angeles Hyperion Treatment Plant, including the sewers for the Hyperion service area. Order No. 94-021 contains requirements as follows:

   a) "Section IV, Provision 2: Any discharge of wastes at any point other than specifically described in this order and permit is prohibited, and constitutes a violation thereof."

   b) "Standard Provisions B7 (Prohibitions): Any 'overflow' or 'bypass' of facilities, including the 'waste' collection system, is prohibited ...."

   c) "Standard Provision C1: Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the California Water Code."

   d) "Standard Provision C2: The discharger shall, at all times, properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with this order and permit ...."

   e) "Standard Provision C10: The discharger shall take all reasonable steps to minimize or prevent affecting human health or the environment, including such accelerated or additional monitoring as necessary to determine the nature and impact of the violation."

3. On June 15, 1998, the Regional Board adopted Order No. 98-046 (NPDES Permit No. CA005627), containing Waste Discharge Requirements for the City of Los Angeles Tillman Plant, which produces a tertiary-level wastewater at a design capacity of 80 million gallons per day (mgd). Sewers flowing into the Tillman Plant are within the Hyperion service area; wastewaters flowing to the Tillman Plant can be diverted to the downgradient Hyperion Plant.

4. On June 15, 1998, the Regional Board adopted Order No. 98-047 (NPDES Permit No. CA0053953), containing Waste Discharge Requirements for the City of Los Angeles LA/Glendale Plant, which produces a tertiary-level wastewater at a design capacity of 20 mgd. Sewers flowing

into the LA/Glendale Plant are within the Hyperion service area; wastewaters flowing to the LA/Glendale Plant can be diverted to the downgradient Hyperion Plant.

5. Between February and May 1998, the City violated requirements in Order No. 94-021 by discharging over 44 million gallons of sewage from sewers in the Hyperion service area into streets, storm drains, Ballona Creek, Santa Monica Bay, Los Angeles River, and San Pedro Bay. These sanitary sewer overflows were due to lack of capacity, increased runoff, and a rising water table. The increased runoff and rising water table resulted in inflow and infiltration into sewers within the Hyperion service area. As the sewers in portions of the Hyperion service area had insufficient capacity to absorb the inflow and infiltration, sewage was released from manholes in the areas cited below.

- Glassell Park /Highland Park (Eagle Rock Blvd./York Blvd.) 29.4 million gallons
- South Central (along 41st Street) 6.1 million gallons
- El Sereno (along North Figueroa Street) 5.9 million gallons
- Silverlake (along Griffith Park Blvd.) 1.2 million gallons
- North Hollywood (Cahuenga Blvd. & Lankershim Blvd.) 0.08 million gallons
- Bell (along Eastern Avenue) 0.9 million gallons
- Boyle Heights (along Blades Street) 0.6 million gallons
- Palms (Regent Street & Military Avenue) 0.009 million gallons
- Malibu (along Pacific Coast Highway) 0.001 million gallons

6. On March 25, 1998, the City sampled two of the sewer overflows along Eagle Rock Boulevard (Glassell Park/Highland Park) and in South Central. Coliform counts for these overflows are listed in the table below.

LOCATION	TOTAL COLIFORM (cfu/100 ml)	FECAL COLIFORM (cfu/100 ml)
Glassell Park/Highland Park	5,100,000	2,100,000
South Central Los Angeles	38,000,000	4,700,000

7. Between January and February 1993, sanitary sewer overflows in the South Central area of the City totaled 275,000 gallons. Between January and March 1995, sanitary sewer overflows in South Central totaled 557,000 gallons of sewage. And between February and May 1998, as shown above, sanitary sewer overflows in South Central totaled 6,098,000 gallons.

8. The principal artery of the sewer system for the Hyperion service area is referred to as the North Outfall Sewer (NOS). The NOS in the South Central area is about 70 years old. As stated in a draft Environmental Impact Report, dated June 1998, sewer pipes in this area (which are referred to as the Maze) were constructed using circular and semi-elliptical concrete pipe lined with vitrified clay tiles. Since much of the sewer pipe in the area has deteriorated, the City recently restored the structural integrity of the sewer by sliplining most of the circular sewer pipes. The sliplining, however, has reduced the hydraulic capacity of these portions of the sewer system.

9. Regional Board staff are assessing the City's emergency response to sanitary sewer overflows to determine if additional measures need to be taken in the future to protect human health.

10. In 1990, the City identified a sewer capacity problem in the Maze, and initiated an examination of improvements needed to that portion of the NOS. In 1992, the City proposed to replace the Maze with an East Central Interceptor Sewer (ECIS), in a report entitled "Concept Report-North Outfall

Relief Sewer II." However, construction on this sewer upgrade project was never initiated. Major tasks that still need to be completed prior to startup of construction include certification of the environmental impact report, design, community relations, row acquisition, and contract bid and award.

A "Draft Environmental Impact Report, North Outfall Sewer-East Central Interceptor Sewer," dated June 1998, discusses two sewer construction techniques, namely: tunneling and open trench. The City is in the process of assessing environmental impacts, construction costs, and construction schedules associated with each of these methods to determine the best technique to implement. Construction is currently scheduled for startup by December 1, 2000 and completion by November 30, 2003. Contrary to previous expectations, staff at the City have come to a preliminary conclusion that construction using open trench techniques may not be quicker or more cost effective than tunneling techniques.

11. In 1992, as set forth in a "Wastewater Capital Improvement Program (CIP) (1992/93...2001/02)," the City proposed an Eagle Rock and Highland Park Sewer System Relief Project, and scheduled completion for June 1997. The proposed project would have relieved the existing overloaded primary wastewater collection system in the Eagle Rock and Highland Park areas. The proposed replacement sewers ranged from 18 inches to 45 inches in diameter for Eagle Rock Boulevard, Verdugo Road and York Boulevard. The project was subsequently deferred, due to the need to expand downstream sewer capacity (in South Central) before expanding sewer capacity in the Eagle Rock and Highland Park areas.

12. The 1992 CIP also included a North Hollywood Interceptor Sewer, to be completed by June 1994. This proposed project would have provided immediate relief for overloaded sewers along Cahuenga Boulevard. In 1995, the City revised the project completion date to October 1997 for Unit 1 and May 1998 for Unit 2 of the North Hollywood Interceptor Sewer, as set forth in the 1995 CIP. However, construction on this sewer upgrade project was never initiated due to the need to redirect construction efforts to sewer repairs following the Northridge Earthquake in 1994.

13. In 1998, as set forth in the "Wastewater Capital Improvement Program (1997/98...2006/07)," the City has revised the completion date for the North Hollywood Interceptor Sewer project to 2001. This CIP also sets forth additional sewer construction, replacement, and rehabilitation projects such as an Eastern Avenue Relief Sewer in El Sereno and the Eagle Rock Area Relief Sewer (Phases 2B, 2C, and 2D).

14. Design, planning, environmental review and approval, and contract bid and award have not yet been completed for the ECIS East/West as well as other projects, including: NOS Relief Sewer--LA Glendale (LAG) to Mission Road (also known as ECIS North/South); Eastern Avenue Relief Sewer; and Eagle Rock Area Relief Sewer Phases 2B, 2C, and 2D. Accordingly, the City is concerned that construction completion dates may have to be revised once these tasks have been completed. Furthermore, construction may be delayed due to unforeseen problems such as contaminated soil, unstable soil, undocumented utilities, and natural disasters. Accordingly, the City is concerned that construction completion dates may be subject to delays.

15. The City has proposed interim solutions, as described below, to reduce the risk of sanitary sewer overflows into the streets should heavy rains again occur prior to completion of sewer upgrades.

    a) Eagle Rock Interim Measures: The Eagle Rock area is densely populated and has steep

topographical relief. In addition, the area has a restricted drainage basin with a single southwestern outlet. Unless adequately designed for such hydrologic considerations, the shallow groundwater and permeable soil can cause severe inflow and infiltration problems during wet weather conditions along Eagle Rock Boulevard and Verdugo Road. The City has identified three areas, or "choke points," where capacity is currently constricted; and proposed interim measures to reduce the risk of sanitary sewer overflows. These interim measures, to be completed by December 31, 1998, include:

- Immediate construction of three relief sewers at the choke points in Eagle Rock, which will increase hydraulic capacity to accommodate wet weather flows of 65 cubic feet second. Two of the relief sewers will be 36-inch diameter lines in Eagle Rock Boulevard, one approximately 1,400 feet from El Paso Drive to Verdugo Road and the other approximately 2,000 feet from Avenue 36 to Avenue 33. The third relief sewer will be a 12-inch diameter line in El Paso Drive from Toland Way to Eagle Rock Boulevard.
- Completion of a feasibility study to determine the effectiveness of a dewatering system in the Eagle Rock area, including a review of hydrogeologic information, cone penetrometer testing, and installation of groundwater monitoring wells for an aquifer test.

b) Filter bypass provisions at the Tillman and LA/Glendale Plants: The City has stated, in "Comments on Tentative NPDES Permits: Tillman Water Reclamation Plant (CA0056227) and Los Angeles-Glendale Water Reclamation Plant (CA0053953)," dated June 4, 1998, that the ability to bypass filters and discharge partially-treated wastewaters from the Tillman Plant and from the LA/Glendale Plant during specified wet weather periods will allow these Plants to treat additional wastewaters. This proposal is intended to provide hydraulic relief to the downstream sewers that overflowed between February and May 1998. The partially-treated wastewaters would meet secondary wastewater treatment standards.

c) La Cienega--San Fernando Valley Relief Sewer: The City is diverting as much flow as possible from the San Fernando Valley to the La Cienega--San Fernando Valley Relief Sewer, thereby diverting wastewater away from the Maze portion of the NOS and thus reducing hydraulic pressure on this system.

17. This enforcement action is being taken to protect the public health and the environment, and as such is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Section 15321, Chapter 3, Title 14, California Administrative Code.

The Board notified the City, interested agencies, and parties of its intent to issue a Cease and Desist Order. The Regional Board heard and considered all testimony pertinent to this matter in a public hearing. All Orders referred to above and records of hearings and testimony therein are included herein by reference.

IT IS HEREBY ORDERED that, in accordance with Section 13301 of the California Water Code, the City of Los Angeles shall cease and desist all sanitary sewer overflows, by complying with the following:

1. Upgrade sewers in the Hyperion service area, by complying with the schedule below.

Task	Interim measures.	B. Assess the cause of overflows in Boyle Heights
A. Implement Eagle Rock		

		Completion Date [a]	Report of Compliance [a]
	and Silver Lake; identify corrective measures.	December 31, 1998	January 31, 1999
C.	Construct the Eastern Avenue Relief Sewer.	June 30, 1999	July 31, 1999
D.	Implement the corrective measures identified in Task B for Boyle Heights and Silver Lake.	November 30, 2000	December 31, 2000
E.	Construct the North Hollywood Interceptor Sewer.	June 30, 2001	July 31, 2001
F.	Construct ECIS (E/W).		
G.	Construct NOS Relief Sewer--LAG to Mission Road.	December 31, 2001	January 31, 2002
H.	Construct the Eagle Rock Area Relief Sewer Phases 2B, 2C, and 2D.	November 30, 2003 [b] November 30, 2004 [b] November 30, 2005 [b]	December 31, 2003 [b] December 31, 2004 [b] December 31, 2005 [b]

a In the event of construction delays due to unforeseen problems such as contaminated soil, unstable soil, undocumented utilities, and natural disasters, the City may submit a written request for a one time extension not to exceed six months from the completion date and report of compliance cited above. Such a request is subject to the approval of the Executive Officer of the Regional Board.

b In the event that design, planning, environmental review/approval, and contract bid/award indicate that the City needs to make significant revisions, beyond six months, to the construction schedule cited above, the City may request reconsideration of the completion dates for ECIS East/West, NOS Relief Sewer--LAG to Mission Road, and Eagle Rock Area Relief Sewer Phases 2B, 2C, and 2D. Any proposed revisions, which would be subject to public review, would be made by Order of this Regional Board.

2. Submit semi-annual progress reports on permitting, engineering and financing until full compliance is achieved, within 30 days after the end of six months. The first progress report is due January 31, 1999. Semi-annual meetings between City staff and Regional Board staff may be scheduled, as warranted, to discuss the progress reports.

3. Implement additional spill response, notification, containment and cleanup procedures. Documentation of a revised spill response protocol is due November 30, 1998, and will be subject to approval by the Executive Officer. Improvements are to include measures outlined in a letter, dated March 10, 1998, addressed to the Los Angeles City Council Members entitled "Plans to Prevent, Mitigate and Respond to Potential Sewage Overflows - CF # 98-0417." In addition, the City shall document implementation of emergency response protocol to include the collection and laboratory analysis of at least one sanitary sewer overflow sample at each location per day.

4. Reduce the risk of sanitary sewer overflows, by bypassing filtration processes at the Tillman and LA/Glendale Plants, under specified conditions until completion of the ECIS projects E/W and N/S.

During extreme wet weather events, when influent flows into the Tillman and LA/Glendale Plants may exceed 150 percent of design capacity, secondary-treated wastewaters may bypass tertiary filtration processes. At the Tillman Plant, such a filter bypass may not be activated until the influent flow, during a wet weather period, exceeds 120 mgd at the headworks. At the LA/Glendale Plant, such a filter bypass may not be activated until the influent flow, during a wet weather period, exceeds 30 mgd at the headworks. When activating a filter bypass, the City shall provide notice to the Regional Board, the State Department of Health Services, and the County of Los Angeles Department of Health Services. A written report reviewing the rationale for activating the filter bypass must be submitted within 5 days to the Regional Board: the rationale is to include, among other pertinent information, the storm pattern, inflow and infiltration into the sewers, and the effectiveness of the filter bypass in reducing risks of overflows at choke points in the sewer system.

During periods of filter bypass, all water reclamation deliveries from the Tillman and LA/Glendale Plants shall be suspended. Filter bypasses shall be discontinued when the influent flows into the Tillman and LA/Glendale Plants fall back below 150 percent of the design capacity of each Plant. This filter bypass provision shall expire upon completion of ECIS North/South (aka NOS Relief Sewer--LAG to Mission Road).

Provided that the City is, in all other respects, in full compliance with this Order and Orders 98-046 and 98-047, the Regional Board will not enforce BOD, suspended solids, turbidity, coliform and residual chlorine limits specified in Orders 98-046 and 98-047 during periods of filter bypass, for that portion of the wastewater that is not filtered, provided the wastewater bypassing the filters receives full secondary treatment (i.e. is oxidized, coagulated, and clarified) and complies with the interim limits below:

Constituent	**Tillman Plant**		**LA/Glendale Plant**	
	Average	**Daily Maximum**	**Average**	**Daily Maximum**
$BOD_5$20°C	30 mg/L	45 mg/L	30 mg/L	45 mg/L
Suspended Solids	30 mg/L	45 mg/L	30 mg/L	45 mg/L
Turbidity	10 NTU	15 NTU	10 NTU	15 NTU

The City will demonstrate compliance with the above interim limits by supplementing the periodic reports of self-monitoring required under Monitoring and Reporting Programs Nos. 5695 and 5675, to include daily composite sampling for BOD and suspended solids and continuous recording of turbidity levels. The effluent quality of the secondary wastewater bypassing the filters need not be included in compliance calculations for 7-day and monthly averages that are specified in Orders 98-046 and 98-047.

As this Order does not change requirements specified in Orders 98-046 and 98-047, the Regional Board will consider an amendment to these Orders that would include these specifications for this filter bypass provision. All other requirements in Orders 98-046 and 98-047 shall remain in effect.

This Order does not preclude the Regional Board from taking enforcement action, including complaints for administrative civil liability, for the sanitary sewer overflows that occurred between February and May 1998. Furthermore, during the term of this Order, the Regional Board is not precluded from taking enforcement action, including complaints for administrative civil liability, for future sanitary sewer overflows that may occur during dry or wet weather.

The action taken by this Regional Board does not preclude the possibility of actions to enforce this Order by third parties pursuant to Section 505 of the Federal Clean Water Act.

Should the City of Los Angeles fail to comply with any provision of this Order, the Executive Officer is authorized to request the Attorney General to take appropriate action against the City, including injunction and civil monetary remedies, pursuant to appropriate California Water Code sections, including but not limited to, Sections 13331, 13350, 13385 and 13386.

I, Dennis A. Dickerson, Executive Officer, do hereby certify that the forgoing is full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on September 14, 1998.

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DENNIS A. DICKERSON
Executive Officer